

Reg.No. \_\_\_\_\_



# Karunya UNIVERSITY

(Karunya Institute of Technology &amp; Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

## End Semester Examination – April/May – 2016-17

Code : **16CE2001**  
 Sub. Name : **Intelligent Buildings**

Semester : **2016-17 EVEN**  
 Duration : **3hrs**  
 Max. marks : **100**

### ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	What are the different smart materials?	CO1	5
	b.	Explain the cost analysis of intelligent building?	CO1	5
	c.	Give an account of integrated building management systems?	CO3	10
(OR)				
2.	a.	Explain the different certification ratings in LEED?	CO1	5
	b.	Explain the features of Green buildings	CO3	10
	c.	What are shape memory alloys	CO1	5
3.	a.	Explain the different types of wiring system, highlighting the advantages and disadvantages of each?	CO3	10
	b.	Explain the components of air-conditioned system?	CO2	5
	c.	List the advantages and disadvantages of over head and underground power transmission systems?	CO1	5
(OR)				
4.	a.	Explain the lighting system in hospitals?	CO2	10
	b.	Explain different types artificial lightings used in buildings?	CO3	10
5.	a.	Give any five safety regulation as per NBC regulation in case of fire?	CO1	5
	b.	Write the characteristics of fire resisting materials?	CO1	5
	c.	Explain various types fire installations in buildings?	CO3	10
(OR)				
6.	a.	What are the different gases produced during fire accident and how does it effects on human health?	CO1	5
	b.	Distinguish between the wet riser and dry riser?	CO3	5
	c.	Give an account of different fire resisting materials?	CO3	10
7.	a.	What are the different types of cards used in access control systems?	CO1	5
	b.	State the difference between access control and intrusion control systems?	CO2	5
	c.	Explain the different systems involved in security management?	CO3	10
(OR)				
8.	a.	With the help of neat sketch explain the analog and digital CCTV?	CO3	10
	b.	Explain the working of Access Control	CO3	10
<b>Compulsory:</b>				
9.	a.	State the difference between microprocessor and microcontroller?	CO1	5
	b.	Enumerate on the uses of satellite Communication systems?	CO3	5
	c.	Write the areas of applications of PLC?	CO3	5
	d.	List the advantages of satellite communication	CO3	5

ALL THE BEST

- CO1 - The students will be able to understand the concept of intelligent building
- CO2 - Analyze the different HVAC and security systems
- CO3 - Evaluate systems to automate buildings